SN.09 /778,993   ATTORNEY DOCKET NO. CANO:019

IN THE CLAIMS

The status of the claims as presently amended is as follows:

1. (*Currently Amended*) An image forming apparatus comprising:

~~reading~~inputting means for ~~reading~~inputting images ~~recorded on originals~~;

image forming means for forming images on blank sheets based on the ~~read~~input images;

stacking means for stacking a plurality of insert sheets which are ~~fed in a manner bypassing image formation by said image forming means and~~ inserted between ~~said~~the sheets having images formed thereon by said image forming means, in a predetermined order in which the insert sheets are inserted;

inserter means for ~~reading~~ outfeeding the stacked insert sheets and inserting same between ~~the~~said sheets having images formed thereon;

designating means for designating at least one position in said sheets having images formed thereon for insertion of at least one of the insert sheets by said inserter means;

detecting means for detecting an insert sheet to be inserted first when a plurality of positions have been designated by said designating means; and

discharging means operable when said detecting means detects that the insert sheet ~~read~~ outfed by said inserter means is not the insert sheet to be inserted first, for discharging insert sheets ~~from said stacking means~~onto at least one tray other than a tray onto which the insert sheet to be inserted first is discharged until the insert sheet to be inserted first is detected.

2. (*Currently Amended*) An image forming apparatus according to claim 1, wherein said stacking means comprises a plurality of trays for stacking said plurality of insert sheets in a divided manner, the image forming apparatus further comprising selecting means capable of selecting between two types of stacking modes consisting of a first stacking mode in which a same type of insert sheets are stacked on each of said plurality of trays and a second stacking mode in which plural types of insert sheets are stacked in order in which they are inserted on each of said plurality of trays, and wherein said discharging means discharges insert sheets ~~from said stacking means when~~while said second stacking mode is selected by said selecting means.

4

SN.09 /778,993   ATTORNEY DOCKET NO. CANO:019

3. (*Original*) An image forming apparatus according to claim 1, further comprising post-processing means for stacking said sheets having images formed thereon by said image forming means in a fashion mixed with insert sheets inserted by said inserter means, and for carrying out post-processing on the mixedly stacked sheets.

4. (*Original*) An image forming apparatus according to claim 3, wherein said discharging means discharges said insert sheets to a location other than said post-processing means.

5. (*Original*) An image forming apparatus according to claim 1, comprising a conveyance path for insert sheets, and wherein said detecting means is provided on said conveyance path for insert sheets.

6. (*Currently Amended*) An image forming apparatus comprising:

reading~~inputting~~ means for reading~~inputting~~ images ~~recorded on originals~~;

image forming means for forming images on blank sheets based on the ~~read~~input images;

stacking means for stacking a plurality of insert sheets which are ~~fed in a manner bypassing image formation by said image forming means and~~ inserted between the sheets having images formed thereon by said image forming means, in a predetermined order in which the insert sheets are inserted;

inserter means for ~~reading~~outfeeding the stacked insert sheets and inserting same between said sheets having images formed thereon;

designating means for designating at least one position in said sheets having images formed thereon for insertion of at least one of the insert sheets by said inserter means;

detecting means for detecting an insert sheet to be inserted first when a plurality of positions have been designated by said designating means;

interrupting means for interrupting a sheet inserting operation of said inserter means when at least one of the insert sheets has jammed while being inserted by said inserter means; and

discharging means operable when said detecting means detects that the insert sheet

5

read-out̶fed by said inserter means is not the insert sheet to be inserted first after the apparatus has recovered from the interruption by removing the at least one jammed insert sheet, for discharging insert sheets f̶r̶o̶m̶ ̶s̶a̶i̶d̶ ̶s̶t̶a̶c̶k̶i̶n̶g̶ ̶m̶e̶a̶n̶s̶onto at least one tray other than a tray onto which the insert sheet to be inserted first is discharged until the insert sheet to be inserted first is detected, and for further discharging insert sheets f̶r̶o̶m̶ ̶s̶a̶i̶d̶ ̶s̶t̶a̶c̶k̶i̶n̶g̶ ̶m̶e̶a̶n̶s̶up to an insert sheet immediately preceding a same type of insert sheet as the at least one jammed insert sheet.

7. (*Currently Amended*) An image forming apparatus according to claim 6, for stacking said plurality of insert sheets in a divided manner, the image forming apparatus further comprising selecting means capable of selecting between two types of stacking modes consisting of a first stacking mode in which a same type of insert sheets are stacked on each of said plurality of trays and a second stacking mode in which plural types of insert sheets are stacked in order in which they are inserted on each of said plurality of trays, and wherein said discharging means discharges insert sheets f̶r̶o̶m̶ ̶s̶a̶i̶d̶ ̶s̶t̶a̶c̶k̶i̶n̶g̶ ̶m̶e̶a̶n̶s̶ ̶w̶h̶e̶n̶while said second stacking mode is selected by said selecting means.

8. (*Original*) An image forming apparatus according to claim 6, further comprising post-processing means for stacking said sheets having images formed thereon by said image forming means in a fashion mixed with insert sheets inserted by said inserter means, and for carrying out post-processing on the mixedly stacked sheets.

9. (*Original*) An image forming apparatus according to claim 8, wherein said discharging means discharges said insert sheets to a location other than said post-processing means.

10. (*Original*) An image forming apparatus according to claim 6, comprising a conveyance path for insert sheets, and wherein said detecting means is provided on said conveyance path for insert sheets.

6

SN.09 /778,993   ATTORNEY DOCKET NO. CANO:019

11. (*Currently Amended*) An image forming apparatus comprising:

~~reading~~inputting means for ~~reading~~inputting images ~~recorded on originals~~;

image forming means for forming images on blank sheets based on the ~~read~~input
images;

stacking means for stacking a plurality of insert sheets which are ~~fed in a manner
bypassing image formation by said image forming means and~~ inserted between the sheets
having images formed thereon by said image forming means, in a predetermined order in which
the insert sheets are inserted;

inserter means for ~~reading out~~feeding the stacked insert sheets and inserting same
between said sheets having images formed thereon;

mixed stacking means for stacking in a mixed fashion the sheets having images formed
thereon by said image forming means and insert sheets to be inserted by said inserter means
between the sheets having images formed thereon;

insert sheet discharging detecting means for detecting that said insert sheets have been
discharged to said mixed stacking means; and

sheet feeding control means responsive to detection of discharging of said insert sheets
by said insert sheet discharging detecting means, for controlling such that feeding of said blank
sheets to said image forming means be started.

12. (*Currently Amended*) An image forming apparatus comprising:

~~reading~~inputting means for ~~reading~~inputting images ~~recorded on originals~~;

image forming means for forming images on blank sheets based on the ~~read~~input
images;

stacking means for stacking a plurality of insert sheets which are ~~fed in a manner
bypassing image formation by said image forming means and~~ inserted between the sheets
having images formed thereon by said image forming means, in a predetermined order in which
the insert sheets are inserted;

inserter means for ~~reading out~~feeding the stacked insert sheets and inserting same
between said sheets having images formed thereon;

mixed stacking means for stacking in a mixed fashion the sheets having images formed

7

SN.09 /778,993   ATTORNEY DOCKET No. CANO:019

thereon by said image forming means and insert sheets to be inserted by said inserter means between the sheets having images formed thereon;

image formed sheet discharging detecting means for detecting that said sheets having image formed thereon have been discharged to the mixed stacking means; and

~~reading~~inserting control means responsive to detection of discharging of said ~~insert~~ sheets having image formed thereon by said image formed sheet discharging detecting means, for controlling such that ~~reading~~feeding of said insert sheets by said inserter means be started.

13. (*Currently Amended*) An image forming apparatus comprising:

~~reading~~inputting means for ~~reading~~inputting images ~~recorded on originals~~;

image forming means for forming images on blank sheets based on the ~~read~~input images;

stacking means for stacking a plurality of insert sheets which are ~~fed in a manner~~ ~~bypassing image formation by said image forming means and~~ inserted between the sheets having images formed thereon by said image forming means, in a predetermined order in which the insert sheets are inserted;

inserter means for ~~reading out~~feeding the stacked insert sheets and inserting same between said sheets having images formed thereon;

mixed stacking means for stacking in a mixed fashion the sheets having images formed thereon by said image forming means and insert sheets to be inserted by said inserter means between the sheets having images formed thereon;

insert sheet discharging detecting means for detecting that said insert sheets have been discharged to said mixed stacking means;

sheet feeding control means responsive to detection of discharging of said insert sheets by said insert sheet discharging detecting means, for controlling such that feeding of said blank sheets to said image forming means be started;

image formed sheet discharging detecting means for detecting that said sheets having image formed thereon have been discharged to the mixed stacking means; and

~~reading~~inserting control means responsive to detection of discharging of said ~~insert~~ sheets having image formed thereon by said image formed sheet discharging detecting means,

8

for controlling such that ~~reading~~feeding of said insert sheets by said inserter means be started.

14. (*Currently Amended*) A control method of controlling an image forming apparatus, comprising the steps of:

~~reading~~inputting images ~~recorded on originals~~ by ~~reading~~inputting means;

forming images on blank sheets based on the ~~read~~input images by image forming means;

~~reading out~~feeding insert sheets from a plurality of insert sheets stacked by stacking means, which are ~~fed in a manner bypassing image formation by said image forming means and~~ inserted between the sheets having images formed thereon by said image forming means, in a predetermined order in which the insert sheets are inserted and inserting the ~~read out~~fed insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

designating at least one position in said sheets having images formed thereon for insertion of at least one of the insert sheets by said inserter means, by designating means;

detecting an insert sheet to be inserted first by detecting means when a plurality of positions have been designated by said designating means; and

discharging insert sheets ~~from said stacking means~~onto at least one tray other than a tray onto which the insert sheet to be inserted first is discharged until the insert sheet to be inserted first is detected, by discharging means when said detecting means detects that the insert sheet ~~read out~~fed by said inserter means is not the insert sheet to be inserted first.

15. (*Currently Amended*) A control method according to claim 14, wherein said stacking means comprises a plurality of trays for stacking said plurality of insert sheets in a divided manner, the control method further comprising a step of selecting by selecting means between two types of stacking modes consisting of a first stacking mode in which a same type of insert sheets are stacked on each of said plurality of trays and a second stacking mode in which plural types of insert sheets are stacked in order in which they are inserted on each of said plurality of trays, and wherein said discharging step ~~comprises discharging insert sheets from said stacking means when~~is executed while said second stacking mode is selected by said selecting means.

9

16. (Original) A control method according to claim 14, further comprising the steps of stacking
said sheets having images formed thereon by said image forming means in a fashion mixed
with insert sheets inserted by said inserter means, and carrying out post-processing on the
mixedly stacked sheets, by post-processing means.

17. (Original) A control method according to claim 16, wherein said discharging step comprises
discharging said insert sheets to a location other than said post-processing means.

18. (Original) A control method according to claim 14, wherein said detecting means is
provided on a conveyance path for insert sheets.

19. (Currently Amended) A control method of controlling an image forming apparatus,
comprising the steps of:

 reading̶inputting images recorded on originals̶by reading̶inputting means;

 forming images on blank sheets based on the read̶input images by image forming
means;

 reading out̶feeding insert sheets from a plurality of insert sheets stacked by stacking
means, which are fed in a manner bypassing image formation by said image forming means
and̶inserted between the sheets having images formed thereon by said image forming means,
in a predetermined order in which the insert sheets are inserted and inserting the read out̶fed
insert sheets between the sheets having images formed thereon by said image forming means,
by inserter means;

 designating at least one position in said sheets having images formed thereon for
insertion of at least one of the insert sheets by said inserter means, by designating means;

 detecting an insert sheet to be inserted first by detecting means when a plurality of
positions have been designated by said designating means;

 interrupting a sheet inserting operation of said inserter means by interrupting means
when at least one of the insert sheets has jammed while being inserted by said inserter means;
and

 discharging insert sheets from said stacking means̶onto at least one tray other than a

10

tray onto which the insert sheet to be inserted first is discharged until the insert sheet to be
inserted first is detected, and further discharging insert sheets from said stacking means up to
an insert sheet immediately preceding a same type of sheet as the at least one jammed insert
sheet, by discharging means, when said detecting means detects that the insert sheet read
outfed by said inserter means is not the insert sheet to be inserted first after the apparatus has
recovered from the interruption by removing the at least one jammed insert sheet.

20. (Currently Amended) A control method according to claim 19, wherein said stacking means
comprises a plurality of trays for stacking said plurality of insert sheets in a divided manner, the
control method further comprising a step of selecting by selecting means between two types of
stacking modes consisting of a first stacking mode in which a same type of insert sheets are
stacked on each of said plurality of trays and a second stacking mode in which plural types of
insert sheets are stacked in order in which they are inserted on each of said plurality of trays,
and wherein said discharging step comprises discharging insert sheets from said stacking
means whenis executed while said second stacking mode is selected by said selecting means.

21. (Original) A control method according to claim 19, further comprising the steps of stacking
said sheets having images formed thereon by said image forming means in a fashion mixed
with insert sheets inserted by said inserter means, and carrying out post-processing on the
mixedly stacked sheets, by post-processing means.

22. (Original) A control method according to claim 21, wherein said discharging step comprises
discharging said insert sheets to a location other than said post-processing means.

23. (Original) A control method according to claim 19, wherein said detecting means is
provided on a conveyance path for insert sheets.

24. (Currently Amended) A control method of controlling an image forming apparatus,
comprising the steps of:
        readinginputting images recorded on originals by readinginputting means;

11

forming images on blank sheets based on the ~~read~~input images by image forming means;

~~reading out~~feeding insert sheets from a plurality of insert sheets stacked by stacking means, which are ~~fed in a manner bypassing image formation by said image forming means and~~ inserted between the sheets having images formed thereon by said image forming means, in a predetermined order in which the insert sheets are inserted and inserting the ~~read out~~fed insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

detecting by insert sheet discharging detecting means that said insert sheets have been discharged to mixed stacking means that stacks in a mixed fashion the sheets having images formed thereon by said image forming means and insert sheets to be inserted by said inserter means between the sheets having images formed thereon; and

starting feeding of said blank sheets to said image forming means in response to detection of discharging of said insert sheets by said insert sheet discharging detecting means.

25. (*Currently Amended*) A control method of controlling an image forming apparatus, comprising the steps of:

~~reading~~inputting images ~~recorded on originals~~ by ~~reading~~inputting means;

forming images on blank sheets based on the ~~read~~input images by image forming means;

~~reading out~~feeding insert sheets from a plurality of insert sheets stacked by stacking means, which are ~~fed in a manner bypassing image formation by said image forming means and~~ inserted between the sheets having images formed thereon by said image forming means, in a predetermined order in which the insert sheets are inserted and inserting the ~~read out~~fed insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

detecting ~~by insert sheet discharging detecting means~~ that said insert sheets have been discharged to mixed stacking means that stacks in a mixed fashion the sheets having images formed thereon by said image forming means and insert sheets to be inserted by said inserter means between the sheets having images formed thereon; and

12

SN.09 /778,993   ATTORNEY DOCKET NO. CANO:019

starting ~~reading reading~~feeding of said insert sheets by said inserter means in response
to detection of discharging of said ~~insert~~ sheets having images formed thereon by said image
~~formed sheet discharging detecting~~forming means.

26. (*Currently Amended*) A control method of controlling an image forming apparatus,
comprising the steps of:

~~reading~~inputting images ~~recorded on originals~~ by ~~reading~~inputting means;

forming images on blank sheets based on the ~~read~~input images by image forming
means;

~~reading out~~feeding insert sheets from a plurality of insert sheets stacked by stacking
means, which are ~~fed in a manner bypassing image formation by said image forming means
and~~inserted between the sheets having images formed thereon by said image forming means,
in a predetermined order in which the insert sheets are inserted and inserting the ~~read out~~fed
insert sheets between the sheets having images formed thereon by said image forming means,
by inserter means;

detecting ~~by insert sheet discharging detecting means~~ that said insert sheets have been
discharged to mixed stacking means that stacks in a mixed fashion the sheets having images
formed thereon by said image forming means and insert sheets to be inserted by said inserter
means between the sheets having images formed thereon;~~and~~

~~starting sheet feeding of said blank sheet to said image forming means when
discharging of said insert sheet has been detected by said insert sheet discharging detecting
means;~~

~~detecting with an image formed sheet discharging detecting means that said sheet
having image formed thereon has been discharged to said mixed stacking means; and~~

starting feeding of said blank sheets to said image forming means in response to
detection of discharging of said insert sheets ~~by said insert sheet discharging detecting means~~;

detecting ~~by image formed sheet discharging detecting means~~ that said sheets having
image formed thereon have been discharged to said mixed stacking means; and

starting ~~reading~~feeding of said insert sheets by said inserter means in response to
detection of discharging of said insert sheets ~~by said image formed sheet discharging detecting~~

13

SN.09/778,993   ATTORNEY DOCKET NO. CANO:019

~~means~~.

27. (*Currently Amended*) A machine readable storage medium storing instructions of a program for causing a computer to execute an image processing method comprising the steps of:

~~reading~~inputting images ~~recorded on originals~~ by ~~reading~~inputting means;

forming images on blank sheets based on the ~~read~~input images by image forming means;

~~reading out~~feeding insert sheets from a plurality of insert sheets stacked by stacking means, which are ~~fed in a manner bypassing image formation by said image forming means and~~ inserted between the sheets having images formed thereon by said image forming means, in a predetermined order in which the insert sheets are inserted and inserting the ~~read out~~fed insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

designating at least one position in said sheets having images formed thereon for insertion of at least one of the insert sheets by said inserter means, by designating means;

detecting an insert sheet to be inserted first by detecting means when a plurality of positions have been designated by said designating means; and

discharging insert sheets ~~from said stacking means~~onto at least one tray other than a tray onto which the insert sheet to be inserted first is discharged until the insert sheet to be inserted first is detected, by discharging means when said detecting means detects that the insert sheet ~~read out~~fed by said inserter means is not the insert sheet to be inserted first.

28-31. (*Canceled*)

32. (*Currently Amended*) A machine readable storage medium storing instructions of a program for causing a computer to execute an image processing method comprising the steps of:

~~reading~~inputting images ~~recorded on originals~~ by ~~reading~~inputting means;

forming images on blank sheets based on the ~~read~~input images by image forming means;

~~reading out~~feeding insert sheets from a plurality of insert sheets stacked by stacking

14

means, which are ~~fed in a manner bypassing image formation by said image forming means and~~ inserted between the sheets having images formed thereon by said image forming means, in a predetermined order in which the insert sheets are inserted and inserting the ~~read out~~fed insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

designating at least one position in said sheets having images formed thereon for insertion of at least one of the insert sheets by said inserter means, by designating means;

detecting an insert sheet to be inserted first by detecting means when a plurality of positions have been designated by said designating means;

interrupting a sheet inserting operation of said inserter means by interrupting means when at least one of the insert sheets has jammed while being inserted by said inserter means; and

discharging insert sheets from ~~said stacking means~~onto at least one tray other than a tray onto which the insert sheet to be inserted first is discharged until the insert sheet to be inserted first is detected, and further discharging insert sheets ~~from said stacking means~~up to an insert sheet immediately preceding a same type of sheet as the at least one jammed insert sheet, by discharging means, when said detecting means detects that the insert sheet ~~read out~~fed by said inserter means is not the insert sheet to be inserted first after the apparatus has recovered from the interruption by removing the at least one jammed insert sheet.

33-36. (*Canceled*)

37. (*Currently Amended*) A machine readable storage medium storing instructions of a program for causing a computer to execute an image processing method comprising the steps of:

~~reading~~inputting images ~~recorded on originals~~ by ~~reading~~inputting means;

forming images on blank sheets based on the ~~read~~input images by image forming means;

~~reading out~~feeding insert sheets from a plurality of insert sheets stacked by stacking means, which are ~~fed in a manner bypassing image formation by said image forming means and~~ inserted between the sheets having images formed thereon by said image forming means,

15

SN.09 /778,993 ATTORNEY DOCKET NO. CANO:019

in a predetermined order in which the insert sheets are inserted and inserting the read outfed insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

detecting by insert sheet discharging detecting means that said insert sheets have been discharged to mixed stacking means that stacks in a mixed fashion the sheets having images formed thereon by said image forming means and insert sheets to be inserted by said inserter means between the sheets having images formed thereon; and .

starting feeding of said blank sheets to said image forming means in response to detection of discharging of said insert sheets by said insert sheet discharging detecting means.

38. (*Currently Amended*) A machine readable storage medium storing instructions of a program for causing a computer to execute an image processing method comprising the steps of:

readinginputting images with readingby inputting means image recorded on an original;
reading images recorded on originals by reading means;

forming images on blank sheets based on the readinput images by image forming means;

reading outfeeding insert sheets from a plurality of insert sheets stacked by stacking means, which are fed in a manner bypassing image formation by said image forming means and inserted between the sheets having images formed thereon by said image forming means, in a predetermined order in which the insert sheets are inserted and inserting the read outfed insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

detecting by insert sheet discharging detecting means that said insert sheets have been discharged to mixed stacking means that stacks in a mixed fashion the sheets having images formed thereon by said image forming means and insert sheets to be inserted by said inserter means between the sheets having images formed thereon; and

starting reading readingfeeding of said insert sheets by said inserter means in response to detection of discharging of said insert sheets having images formed thereon by said image formed sheet discharging detectingforming means.

16

39. (*Currently Amended*) A machine readable storage medium storing instructions of a program for causing a computer to execute an image processing method comprising the steps of:

~~reading~~inputting images ~~recorded on originals~~ by ~~reading~~inputting means;

forming images on blank sheets based on the ~~read~~input images by image forming means;

reading out insert sheets from a plurality of insert sheets stacked by stacking means, which are fed in a manner bypassing image formation by said image forming means and inserted between the sheets having images formed thereon by said image forming means and inserting the read out insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

~~reading out~~feeding insert sheets from a plurality of insert sheets stacked by stacking means, which are ~~fed in a manner bypassing image formation by said image forming means and~~ inserted between the sheets having images formed thereon by said image forming means, in a predetermined order in which the insert sheets are inserted and inserting the ~~read out~~fed insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

detecting ~~by insert sheet discharging detecting means~~ that said insert sheets have been discharged to mixed stacking means that stacks in a mixed fashion the sheets having images formed thereon by said image forming means and insert sheets to be inserted by said inserter means between the sheets having images formed thereon;~~and~~

~~starting sheet feeding of said blank sheet to said image forming means when discharging of said insert sheet has been detected by said insert sheet discharging detecting means;~~

~~detecting with an image formed sheet discharging detecting means that said sheet having image formed thereon has been discharged to said mixed stacking means; and~~

starting feeding of said blank sheets to said image forming means in response to detection of discharging of said insert sheets~~by said insert sheet discharging detecting means~~;

detecting ~~by image formed sheet discharging detecting means~~ that said sheets having image formed thereon have been discharged to said mixed stacking means; and

starting ~~reading~~feeding of said insert sheets by said inserter means in response to

17

detection of discharging of said insert sheets by said image formed sheet discharging detecting means.

18